

PATENT CLAIMS

1. Holder for a receptacle device for receiving a biological object, wherein the holder (20) is designed for use in a microscope system in order to hold the receptacle device (30) for operation with the microscope system, characterised in that the holder (20) has a coding (23) that identifies the type of receptacle device (30).
2. Holder according to claim 1, characterised in that the holder (20) has a frame (21) for holding the receptacle device (30).
3. Holder according to claim 1 or claim 2, characterised in that the coding (23) is an optically scannable coding.
4. Holder according to claim 3, characterised in that the coding comprises comb-like projections that extend from the holder (20), whereby the receptacle device (30) is identified by the arrangement of the projections.
5. Holder according to claim 3 or claim 4, characterised in that the coding (23) comprises a barcode.
6. Holder according to one of the preceding claims, characterised in that the coding (23) comprises an inductive coding.

7. Holder according to one of the preceding claims,  
characterised in that the coding (23) comprises a  
capacitative coding.
- 5 8. Holder according to claim 6 or claim 7, characterised in  
that the coding (23) comprises a transponder.
9. Holder according to one of the preceding claims,  
characterised in that the holder (20) is designed to  
10 hold a receptacle device (30) that is chosen from a  
group comprising a cap, a tube, a microtitre plate and  
arrangements thereof.
10. Holder according to one of the preceding claims,  
15 characterised in that the holder (20) is designed for  
use in a laser microdissection system, in order to hold  
the receptacle device (30) for operation with the laser  
microdissection system for receiving biological objects  
excised from a biological material with the aid of the  
20 laser microdissection system.
11. Microscope system, with a microscope (1) for observing a  
biological material (43) located on an object carrier  
(3), with identification means (32, 33) for identifying  
25 a receptacle device (30) used in the microscope system  
and held by a holder (20) according to one of the  
preceding claims by evaluating the coding (23) of the  
holder (20), and with control means (7) for the  
automatic adjustment, specific to the receptacle device,  
30 of at least one function of the microscope system  
depending on the identified receptacle device (30).

12. Microscope system according to claim 11, characterised  
in that the identification means (32, 33) are designed  
for the optical scanning of the coding (23) of the  
holder (20).  
5
13. Microscope system according to claim 11 or claim 12,  
characterised in that the identification means (32, 33)  
are designed for the inductive scanning of the coding  
(23) of the holder (20).  
10
14. Microscope system according to one of claims 11 to 13,  
characterised in that the identification means (32, 33)  
are designed for the capacitative scanning of the coding  
(23) of the holder (20).  
15
15. Microscope system according to one of claims 11 to 14,  
characterised in that the control means (7) are designed  
so that, depending on the identified receptacle device  
(30), they form an image of the identified receptacle  
device (30) on a reproduction equipment (3).  
20
16. Microscope system according to one of claims 11 to 15,  
characterised in that the control means (7) are designed  
so that, depending on the identified receptacle device  
(30), they provide in a manner specific to the  
receptacle device selection functions for the automatic  
manipulation of the receptacle device (30).  
25
17. Microscope system according to one of claims 11 to 16,  
characterised in that the control means (7) are designed  
30

so that, depending on the identified receptacle device (30), they manipulate in a manner specific to the receptacle device an adjustment device (2) of the microscope system to which the holder (20) is to be coupled, in order to position the receptacle device (30) in the microscope system with the aid of the adjustment device (2).

18. Microscope system according to one of claims 11 to 17, characterised in that the microscope system is a laser microdissection system with a laser device (4) for excising biological objects from the biological material (43) by means of laser radiation.

19. Microscope system according to claim 18, characterised in that the control means (7) are designed so that, depending on the identified receptacle device (30), they provide in a manner specific to the receptacle device selection functions for the allocation of individual biological objects to be dissected to individual receptacle containers (31) of the receptacle device (30), in order then to dissect automatically, by manipulating an adjustment device (2) that is to be coupled to the holder (20), the individual biological objects in the correspondingly allocated receptacle containers (31) of the receptacle device (30).

20. Microscope system according to claim 18 or claim 19, characterised in that image recording means are provided to record an image of the receptacle device (30), and that the control means (7) are designed so that,

depending on the identified receptacle device (30), they  
manipulate the image recording means in a manner  
specific to the receptacle device in such a way that  
these automatically remove the receptacle device (30) in  
5 order to record an image of the receptacle device (30).

21. Microscope system according to claim 20, characterised  
in that the control means (7) are designed so that after  
a dissection procedure they automatically manipulate the  
10 image recording means so as to record the image of the  
receptacle device (30) at least in a region of those  
receptacle containers (31) in which the biological  
objects are dissected.

15 22. Microscope system according to one of claims 18 to 21,  
characterised in that the control means (7) are designed  
so that, depending on the identified receptacle device  
(30), they prepare a dissection protocol, specific to  
the receptacle device, for a dissection work sequence  
20 carried out with respect to the receptacle device (30)